## (19) World Intellectual Property Organization

International Bureau



## 

(43) International Publication Date 9 June 2005 (09.06.2005)

**PCT** 

## (10) International Publication Number WO 2005/051616 A1

(51) International Patent Classification7:

B26D 5/00

(21) International Application Number:

PCT/EP2004/053055

(22) International Filing Date:

23 November 2004 (23.11.2004)

(25) Filing Language:

**English** 

(26) Publication Language:

English

(30) Priority Data: BO2003A000708

24 November 2003 (24.11.2003)

- (71) Applicant (for all designated States except US): G.D SOCIETA' PER AZIONI [IT/IT]; Via Battindarno, 91, I-40133 BOLOGNA (IT).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): NICASTRO, Francesco [IT/IT]; Via Sbarretti, 23, I-40026 IMOLA
- (74) Agents: JORIO, Paolo et al.; STUDIO TORTA S.r.l., Via Viotti, 9, I-10121 TORINO (IT).

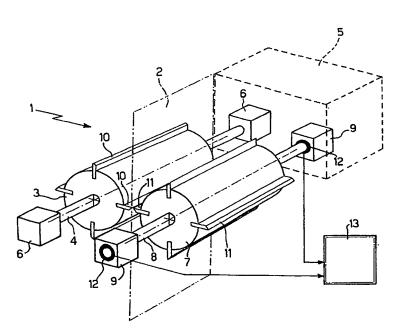
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR PREDICTIVE MAINTENANCE OF A CUTTING UNIT OF AN AUTOMATIC MACHINE



(57) Abstract: A method for predictive maintenance of a cutting unit (1) of an automatic machine; the method determining, with a given frequency, the value (V) of a characteristic quantity of the cutting unit (1) related to contact between a cutting member (10) and a counter-member (11); determining a curve (14) for extrapolating the time pattern of the characteristic quantity value (V); and programming maintenance work on the cutting unit (1) when the curve (14) is outside a given acceptance range.